PTO/SB/08A (08-03)

are required to respond to a collection of information unless it contains a valid OMB control number. Under the Paperwork Reduction Act

Attorney Docket Number

Substitute for form 1449/PTO

Examiner

Signature

AUG 1 4 2006

INFORMATION DISCLOSURE STATEMENT BY ARP

Application Number 10/575,993 Filing Date October 19, 2004 First Named Inventor Robert E. Hefner Jr. Not Assigned Art Unit **Examiner Name** Not Assigned

Complete if Known

62750A

(Use as many sheets as ne Sheet 1 of 4

/Sikarl Witherspoon/

Examiner Initials*	Cite No. ¹	Document Number	Publication Date	Name of Patentee or Applicant of	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear
		Number-Kind Code ² (if known)	(MM-DD-YYYY)	Cited Document	
		US-4,400,540	08-23-1983	Bruce A. Reinhardt, et al.	
		US-5,189,117	02-23-1993	Robert E. Hefner Jr.	
		US-5,270,406	12-14-1993	Jimmy D. Earls et al.	
		US-5,637,669	06-10-1997	Robert E. Hefner Jr. et al.	
		US-5,965,679	10-12-1999	James P. Godschalx, et al.	
		US-6,156,812	12-05-2000	Kreisler Lau, et al.	
		US-6,172,128 B1	01-09-2001	Kreisler Lau, et al.	
		US-6,359,091 B1	03-19-2002	James P. Godschalx, et al.	
		US-6,653,358 B2	11-25-2003	Kenneth J. Bruza, et al.	
		US-6,887,910 B2	05-03-2005	Kenneth J. Bruza, et al.	
		US-2003/0027970 A1	02-06-2003	Roland Haasmann et al.	
•		US-2003/0083392 A1	05-01-2003	Kenneth J. Bruza et al.	
		US-2003/0165625 A1	09-04-2003	Ying Hung So, et al.	
		US-2004/0053033 A1	03-18-2004	Q. Jason Niu, et al.	
		US-2004/0054111 A1	03-18-2004	Thomas H. Kalantar	
		US-2005/0014855 A1	01-20-2005	Kenneth J. Bruza	
		US-			
		US-			-
		US-			

*Examiner: Initial if reference considered, whether or not citation is in conformance with MPEP609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant. 1 Applicant's unique citation designation number (optional). 2 See Kinds Codes of USPTO Patent Documents at www.uspto.gov or MPEP 901.04. 3 Enter Office that issued the document, by the two-letter code (WIPO Standard ST.3). ⁴Form Japanese patent documents, the indication of the year of the reign of the Emperor must precede the serial number of the patent document. ⁵Kind of document by the appropriate symbols as indicated on the document under WIPO Standard ST.16 if possible. 6Applicant is to place a check mark here if English language Translation is attached. This collection of information is required by 37 CFR 1.97 and 1.98. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 2 hours to complete, including gathering, preparing and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, P. O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, P. O. Box 1450, Alexandria, VA 22313-1450.

If you need assistance in completing the form, call 1-800-PTO-9199 (1-800-786-9199) and select option 2

Date

Considered

08/03/2009

10575993 - GAU: 162:

Approved for use through 7/31/2006. OMB 0651-0031

08/03/2009

U.S. Patent and Trademark Office; U.S. DEPARTMENT OF COMMERCE Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it contains a valid OMB control number.

Substitute for form 1449/PTO

Examiner

Signature

INFORMATION DISCLOSURE STATEMENT BY APPLICANT

(Use as many sheets as necessary)

/Sikarl Witherspoon/

		•	•			,,,
Sheet	2			of	4	

Complete if Known					
Application Number	10/575,993				
Filing Date	October 19, 2004				
First Names Inventor	Robert E. Hefner Jr.				
Art Unit	Not Assigned				
Examiner Name	Not Assigned				
Attorney Docket Number	62750A				

Examiner Initials*	Cite No. ¹	Document Number Country Code ³ - Number-Kind Code ⁵ (if known)	Publication Date (MM-DD- YYYY)	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear	T€
		EP-1,245,586 A2	10-02-2002	Shipley Co. L.L.C.		1
		WO-2004/090018 A1	10-21-2004	Dow Global Technologies Inc.		╁╞
-		WO-03/070777 A1	08-28-2003	Dow Global Technologies Inc.	·	十一
		WO-03/068825 A2	08-21-2003	Dow Global Technologies Inc.		╁╞
		WO-00/31183	06-02-2000	The Dow Chemical Company		╁╞
		WO 04/089862	10-21-2004	Dow Global Technologies Inc.		╁┝
						廿
			·			TE
						1
						T
						TE
						$\top \Box$
						$\top \Box$
						\top
						T
						T
						T

*Examiner: Initial if reference considered, whether or not citation is in conformance with MPEP609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant. ¹Applicant's unique citation designation number (optional). ²See Kinds Codes of USPTO Patent Documents at www.uspto.gov or MPEP 901.04. ³Enter Office that issued the document, by the two-letter code (WIPO Standard ST.3). ⁴Form Japanese patent documents, the indication of the year of the reign of the Emperor must precede the serial number of the patent document. ⁵Kind of document by the appropriate symbols as indicated on the document under WIPO Standard ST.16 if possible. ⁶Applicant is to place a check mark here if English language Translation is attached. This collection of information is required by 37 CFR 1.97 and 1.98. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 2 hours to complete, including gathering, preparing and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, P. O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, P. O. Box 1450, Alexandria, VA 22313-1450.

If you need assistance in completing the form, call 1-800-PTO-9199 (1-800-786-9199) and select option 2

Date

Considered

10575993 - GAU: 1621

PTO/SB/08A (08-03)
Approved for use through 7/31/2006. OMB 0651-0031
U.S. Patent and Trademark Office; U.S. DEPARTMENT OF COMMERCE
a collection of information unless it contains a valid OMB control number

Onder the	a rapeiv	work neduction Act of 1995, no persons are requi	rea to respond to a colle			mber.		
Substitute	for form	1449/PTO	1	Comp	olete if Known			
	NEO	DMATION DISCLOSURE	Application Number	1 1	0/575,993			
		RMATION DISCLOSURE	Filing Date October 19, 2004					
,	STAT	EMENT BY APPLICANT	First Named Inventor		Robert E. Hefner Jr.			
	(Us	e as many sheets as necessary)	Art Unit		lot Assigned			
	•	- "	Examiner Name		lot Assigned			
Sheet 3		of 4	Attorney Docket Num		2750A			
		NON PATEN	T LITERATURE D	OCUMENTS				
Examiner Initials*	Cite No. ¹	Include name of the author (in CAPITAL LE journal, serial, symposium, catalog, etc.), date	TTERS), title of the artic	cle (when appropr		т6		
_	BAKER, G. L. and J. K. Stille, "Hexaarylbenzene Units as Cross-Linking Sites for Polyquinolines", Macromolecules, 1979, pages 369-373, Volume 12, No. 3.							
	-	BRAHAM, J. N., T. Hodgins, T. Katto, R. T. Kohl, and J. K. Stille, "Polyphenylenes via Bis(2-pyrones) and Diethynylbenzenes. The Effect of m- and p- Phenlene Unites in the Chain", Macromolecules, 1978, pages 343-346, Volume 11, No. 2.						
	-	CAPEK, Ignac and Jakub Chudej, "On the fine emulsion polymerization of styrene with non-ionic emulsifier," <i>Polymer Bulletin</i> , Vol. 1999, 43, pp. 417-424						
	1	DONESCU et al., "The Influence of Monomers Technology, Vol. 22, Nos, 2&3, pp. 231-244, 20	upon Microemulsions wi	ith Short Chain Co	osurfactant," J. Dispersion Science and			
	1	FELDMAN, Ken S., Robert E. Ruckle, Jr., Susa Potentially Useful Reagent forCatalytic Asymme	n M. Ensel and Paul H. etric Syntheis", Tetrahed	Weinreb, "Synthedron, 1992, pages	esis of a Chiral Binaphtyldisulfide: A 7101-7102, Volume 33, No. 47.			
	J	GUTSCHE et al., "Calixarenes. 6. Synthesis of J. Am. Chem. Soc., Vol. 104, pp. 2652-2653 (19	a Functionalizable Calix 982)	(4)arene in a Con	formationally Rigid Cone Conformation,"			
	4	KRAFT, Amo et al., "Supramolecular liquid crystals with columnar mesophases through self-assembly of carboxylic acids around a tribasic core," Chem. Comm, pp. 1015-1016 (2000)						
	/	KUMAR, Uday and Thomas X. Neenan, "Diels-Alder Polymerization between Bis(cyclopentadienones) and Acetylenes. A Versatile Route to New Hightly Aromatic Polymers", Macromolecules, 1995, pages 124-130, Volume 28, No. 1.						
	/	LARPENT, C. and T. F. Tadros, "Preparation of microlatex dispersions using oil-in-water microemulsions", Colloid Polmer Science, 1991, pages 1171-1183, Volume 269, No. 11.						
	/	LEE, Hyung-Kun et al., "Synthesis of a Nanoporous Polymer with Hexagonal Channels from Supramolecular Discotic Liquid Crystals," Angew. Chem. Int. Ed., Vol. 40, No. 14, pp. 2669-2671 (2001)						
	/	LIU, Zhi, and Jerrold Meinwald, "5-(Trimethylsta one Synthons", J. Org. Chem., 1996, pages 669	annyl)-2H-pyran-2-one a 93-6699, Volume 61, No	and 3-(Trimethylst b. 19.	annyl)-2H-pyran-2-one: New 2H-Pyran-2-			
	1	MCDONALD et al., "Diels-Alder Reactivity of Oxygenated Dienes and Furans. Synthesis of Oxygenated Bipheynyls," J. Chem. Soc. Perk. Trans., Vol. 1, pp. 1893-1900, 1979.						
	/	OGLIARUSO, Michael A. and Ernest I. Becker, "Bistetracyclones and Bishexaphenylbenzenes. II", <i>J. Org. Chem.</i> , 1965, pages 3354-3360, Volume 30.						
		OGLIARUSO, Michael A., Lewis A. Shadoff and Ernest I. Becker, "Bistetracyclones and Bishexaphenylbenzenes", <i>J. Org. Chem.</i> , 1963, pages 2725-2728, Volume 28.						
	_	PUETTER et al., <i>J. Prakt. Chem.</i> , 1951, Vol. 149, pp. 183-216						
	1	SCHILLING, Jr., Curtis L., Joe A. Reed, and J. K. Stille, "Diels-Alder Polymeriztions. VI. Phenylated Polyphenylenes from Bis-2-pyrones and p-Diethynylbenzene", Macromolecules, 1969, pages, 85-88, Volume 2, No. 1.						
	7	TONG, Ling, Douglas M. Ho, Nancy J. Vogelaar, Clarence E. Schutt, and Robert A. Pascal, Jr., "The Albatrossenes: Large, Cleft-Containing, Polyphenyl Polycyclic Aromatic Hydrocarbons", J. Am. Chem. Soc., 1997, pages 7291-7302, Volume 119, No. 31.						
	/	TURCHI, Stefania, Fodolfo Nesi, and Donatella Giomi, "Reactions of 4,5-Dicyanopyridazine with Alkynes and Enamines: a New Straghtforward Complementary Route to 4-Mono- and 4,5-Disubstituted Phthalonitriles", Tetrahedron, 1998, pages 1809-1816, Volume 54.						
		VANKERCKHOVEN, Henk F., Yvan K. Gilliams pyrone with p-Diethynylbenzene*, Macromolecu	, and J. K. Stille, "Poly(lles, pages 541-546, Vo		Reaction of 5,5'-p-Phenylenebis-2-			
- Function		, 1012, p. 30						
Examiner Signature		/Sikarl Witherspoon/		Date Considered	08/03/2009			

"Examiner: Initial if reference considered, whether or not citation is in conformation with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant. Applicant's Extentive: Intend consideration, without the consideration with intended to the consideration with the consideration of information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confideratially is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 2 hours to complete, including gathering, preparing and submitting the completed application from to the USPTO. Time will vary depending upon the individual case. Any comment of time you require to complete this tomorphic this formation is required to complete the complete the complete that the complete the complete the complete that the consideration of the complete that the consideration of the consi

10575993 ~ GAU: 1621 PTO/SB/08A (08-03) Approved for use through 7/31/2006. OMB 0651-0031 U.S. Patent and Trademark Office; U.S. DEPARTMENT OF COMMERCE Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it contains a valid OMB control number.

Substitute for form 1449/PTO			Complete if Known				
	NEO	DMATION DICCLOSURE	Application Number	10/575,993			
		RMATION DISCLOSURE	Filing Date	October 19, 2004			
STATEMENT BY APPLICANT			First Named Inventor	Robert E. Hefner Jr.			
	(Us	e as many sheets as necessary)	Art Unit	Not Assigned			
(obs as many should as mossibary)			Examiner Name	Not Assigned			
Sheet 4		of 4	Attorney Docket Number	62750A			
· · · · · · · · · · · · · · · · · · ·							
		NON PAT	ENT LITERATURE DOCUM	ENTS			
Examiner Initials*	Cite No. ¹	Include name of the author (in CAPITAL journal, serial, symposium, catalog, etc.), c	LETTERS), title of the article (when late, page(s), volume-issue number(appropriate), title of the item (book, magazine, s), publisher, city and/or country where published.	т6		
	-	WIESLER, UM., A. J. Berresheim, F. Morg The Role of Core and Branching Reagents	enroth, G. Lieser, and K. Müllen, "D upn Size and Shape", Macromolecul	ivergent Synthesis of Polyphenylene Dendrimers: les, 2001, pages 187-199, Volume 34, No. 2.	 		
		Zhong, Ben et al., "Porous ultra low-k dielec Boston, MA, August 18-22, 2002, Published	trics having ultra small pores", Abstr by the American Chemical Society	acts of Papers, 224th ACS National Meeting,			
		CHEMICAL ABSTRACT 2001:404713					
		CHEMICAL ABSTRACT 2003:570956					
		CHEMICAL ABSTRACT 2002:566264					
		CHEMICAL ABSTRACT 2000:133674					
		CHEMICAL ABSTRACT 1999:184247	· · · · · · · · · · · · · · · · · · ·	· · · · · · · · · · · · · · · · · · ·			
		CIFERRI, Albert ed., <u>Liquid Crystallinity in F</u> Sidechain Polymers. H. Finkelmann, pp. 31	olymers: Principles and Fundamen 5-340 (1991)	tal Properties, Chapter 8. Liquid-Crystalline			
-							
	┰		<u> </u>		<u> </u>		
-	+	<u></u>					

Examiner

Signature

/Sikarl Witherspoon/

Date

Considered

08/03/2009

^{*}Examiner: Initial if reference considered, whether or not citation is in conformation with MPEP 609. Draw line through citation if not in conformance and not considered, Include copy of this form with next communication to applicant.

Examiner: Insul if reference considered, whether or not clauson is in conformation with inverted to the control of information is required to contain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 2 hours to complete, including gathering, preparing and submitting the completed application form to the USPTO. The will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, P. O. Box 1450, Alexandria, VA 22313-1450. ON OF SEND FLES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, P. O. Box 1450, Alexandria, VA 22313-1450.